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STRATEGIES TO DECREASE PERIOPERATIVE BLOOD LOSS IN ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS) PATIENTS UNDERGOING POSTERIOR SPINAL FUSION (PSF) – JUDICIOUS USE OF DRAINS, PLANNED SURGICAL PROCEDURE, FACTORS INFLUENCING INTRAOPERATIVE BLOOD LOSS

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Introduction: Various strategies used to decrease perioperative blood loss. Postoperative drain collection accounts for 30-40% of perioperative blood loss. To decrease postoperative blood loss, contrary to usual use of deep drains we place subcutaneous spine wound drains and no iliac wound drains. We believe planned meticulous surgical technique is the critical factor in reducing intraoperative blood loss. Aim: Evaluate efficacy of subcutaneous spine wound drain in reducing blood loss and its effect on wound healing. Evaluate amount of reduction in blood loss by not placing an iliac crest wound drain. Document intraoperative blood loss in our patients, identify determining factors. Results: 212 AIS patients who had PSF only reviewed. Mean spine-wound drain collection 254.6±211ml, accounted for 25.7% of the total perioperative blood loss. 105 patients had iliac drains, mean drain collection 178.4±66.2ml. Mean drain collection in group with spine drains only was 224.2±193ml and in group with spine and iliac drain was 463.82±242.8ml,SD(p=<0.001). Intra operative blood loss/patient 741.7±403ml, blood loss/level fused 79.3±37ml. 15 (7%) patients had spine wound healing aberrations, 4(1.8%) wound infection. Between patients who had iliac-wound drains and those without drains, no SD in wound healing aberrations(3.9%vs0.9%) and infection(nil Vs 0.9%). Conclusions: Subcutaneous spine drain decreases drain blood-loss, compared to deep drain as in literature without affecting wound healing. Closure of iliac crest donor site wound without a drain significantly decreases drain collection without affecting wound healing. Intraoperative blood-loss in our patients lower than reported in literature. Intraoperative blood-loss significantly influenced by surgical duration, number of levels fused, number of anchor points.